NOTES ON SOME CONIFERS REPORTED FROM SOME INACCESSIBLE AREAS OF THE SOUTH PACIFIC.

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Amongst some of the poorly explored areas of the South Pacific are three interesting reports given to me by D.J. De Laubenfels of Conifers from little known areas in New Guinea, New Hebrides (Vanuatu) and in Western Samoa. The first report is of a species of Dacrydium collected in Irian Jaya, New Guinea, of which is only represented by an incomplete single herbarium specimen. Another report comes from the island of Espiritu Santo in New Hebrides (Vanuatu) where an unidentified Agathis species occurs and has been seen by a few scientists but has apparently never been collected. The third report concerns sightings of Conifers in the Samoan Islands by aerial view, but any further information on locations or type of Conifer trees thought to be seen has not been obtained. I will further describe these reports to encourage botanical exploration of these areas to find out the true status of these reports.

NEW GUINEA

The first report of a Dacrydium species in New Guinea concerns a species which has been validly published and named, but because it is only represented by a single collection (which is a fragment of a specimen) De Laubenfels has questioned (pers. comm., 3-19-1986) its status. De Laubenfels further questions whether the plant collected is actually a Conifer species. The species was recently reclassified as Dacrydium leptophyllum (Wassch.) De Laub. (F1. Males. 1986), and is only represented by the type specimen (De Kock 39, LAE) of which I have seen a fragment. Dacrydium leptophyllum was collected from Mount Goliath in eastern Irian Jaya, located at 4°40'S. latitude by 139°50' E. longitude. Mount Goliath is a very inaccessible area and is even hard to locate on most maps. De Laubenfels was able to show me the location of Mount Goliath on a very old map of New Guinea published by the National Geographic Society. The National Geographic map shows Mount Goliath occuring south of the Oranje Ranges in Irian Jaya. On more recent maps Mount Goliath would be located just southeast of the Peg. Jayawijaya ranges in eastern Irian Jaya.

Wasscher (1941) first published the type specimen as <u>Podocarpus</u> <u>leptophylla</u>. De Laubenfels (1969) later listed the specimen from Mount Goliath as a probable synonym of <u>Dacrycarpus imbricatus</u> var. robustus De Laub., but was not certain of that theory. Following De Laubenfels original theory Gaussen (1974) listed the specimen under <u>Dacrycarpus</u>, but made a new combination (<u>Dacrycarpus leptophyllum</u>) which is illegitimate. Interestingly, Gaussen (1974)

497

gives measurements on the involucral leaves or foliola of the specimen indicating that perhaps there were once cones on the type specimen. However, De Laubenfels (Fl. Males. 1986) argues that the type specimen is sterile and is not dimorphic but belongs to

Dacrydium.

Interestingly De Laubenfels (pers. comm., Nov. 1984) stated that while he was studying at LAE in New Guinea in 1984 he noted a sterile specimen of a <u>Dacrydium</u> species collected by Paijamas from Mount Giluwe (Papua New Guinea) that looked similar to the material from Mount Goliath. However, while De Laubenfels collected from one side of Mount Giluwe in 1984 he was unable to locate the <u>Dacrydium</u> species in question. It seems possible that <u>Dacrydium</u> leptophyllum might occur on other mountain ranges in central New Guinea, that is if it is a valid species. Since Mount Goliath is an inaccessible area, collection of this species may only be possible by means of a helicopter, but by any means it should be encouraged to collect this plant.

NEW HEBRIDES (VANUATU)

The second report concerns the sighting of an unidentified species of Agathis on the southwestern part of the island of Espiritu Santo in the northern New Hebrides. The trees were first mentioned to D.J. De Laubenfels by T.C. Chambers of the University of Melbourne who wrote De Laubenfels in 1974 concerning the Agathis species. In this letter Chambers describes seeing Agathis growing on the knolls or ridges above the Navaka river near the vicinity of Namaus, Espiritu Santo (15°30'S. latitude by 166°49'E. longitude) and that the native people in that region regarded the trees as somewhat sacred. Unfortunately Chambers did not collect any specimens, but noted the Agathis in question looked similar in habit to A. moorei (Lindl.) Mast of New Caledonia. Chambers also mentioned to De Laubenfels that a Japanese expedition had been in the area in 1973 to look for timber prospects. De Laubenfels (pers. comm., 3-19-1986) also told me that some years ago he had talked to a forester in Port Vila who had flown over Namaus in a helicopter. This forester said the Agathis in Namaus looked rather different from typical trees of A. macrophylla (Lindl.) Mast. seen in other areas of New Hebrides. De Laubenfels states that the forester referred to growth form only, that is the Namaus trees were rather short and stocky. Interestingly Chambers states the Namaus trees were rather large. To date the Agathis near Namaus has never been collected and should be encouraged to be collected by some enthusiastic botanist.

WESTERN SAMOA

D.J. De Laubenfels (pers. comm., 3-19-1986) said he had spoken to a botanist in New Caledonia some years ago whom knew someone who had flown over a heavily forested inaccessible crater in W. Samoa by

helicopter. This forester said some of the trees reportedly seen by aerial view resembled the shape or form of a Conifer. However, to date no more information has been obtained and I have not been able to locate the forester who made the original report. Interestingly De Laubenfels (pers. comm., 4-11-86) also states that he has heard reports of Conifers occuring in inaccessible areas in E. Samoa (American Samoa) which have not been confirmed.

It seems possible that an <u>Agathis</u>, <u>Dacrydium</u> or <u>Podocarpus</u> species may very well occur on the higher inaccessible parts of the Samoan Islands. Perhaps the original sighting was on the island of Savaii on Mount Elietoga or Mount Te'elagi which seem rather less known than the island of Upolu. Though it may be possible that one or more species of Conifers occur throughout the higher inaccessible areas of both Western and Eastern Samoa. Botanical exploration of these areas should be encouraged, even if these areas can only be reached by means of a helicopter.

Suggested References

De Laubenfels (1969) J. Arn. Arb. 50: 274-369.

Gaussen (1974). Trav. Lab. For. Toul., Tome 2, Gym. Act. et Foss., Chap. 13.

Silba (1986) Encyclopaedia Coniferae. Corvallis.

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